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|      |    |        |  |
|------|----|--------|--|
| NEWS | 1  |        | Web Page for STN Seminar Schedule - N. America   |
| NEWS | 2  | JAN 02 | STN pricing information for 2008 now available   |
| NEWS | 3  | JAN 16 | CAS patent coverage enhanced to include exemplified prophetic substances                                   |
| NEWS | 4  | JAN 28 | USPATFULL, USPAT2, and USPATOLD enhanced with new custom IPC display formats                               |
| NEWS | 5  | JAN 28 | MARPAT searching enhanced  |
| NEWS | 6  | JAN 28 | USGENE now provides USPTO sequence data within 3 days of publication                                       |
| NEWS | 7  | JAN 28 | TOXCENTER enhanced with reloaded MEDLINE segment   |
| NEWS | 8  | JAN 28 | MEDLINE and LMEEDLINE reloaded with enhancements   |
| NEWS | 9  | FEB 08 | STN Express, Version 8.3, now available  |
| NEWS | 10 | FEB 20 | PCI now available as a replacement to DPCI   |
| NEWS | 11 | FEB 25 | IFIREF reloaded with enhancements  |
| NEWS | 12 | FEB 25 | IMSPRODUCT reloaded with enhancements  |
| NEWS | 13 | FEB 29 | WPINDEX/WPIDS/WPIX enhanced with ECLA and current U.S. National Patent Classification                      |
| NEWS | 14 | MAR 31 | IFICDB, IFIPAT, and IFIUDB enhanced with new custom IPC display formats                                    |
| NEWS | 15 | MAR 31 | CAS REGISTRY enhanced with additional experimental spectra   |
| NEWS | 16 | MAR 31 | CA/Caplus and CASREACT patent number format for U.S. applications updated                                  |
| NEWS | 17 | MAR 31 | LCPI now available as a replacement to LDPCI   |
| NEWS | 18 | MAR 31 | EMBASE, EMBAL, and LEMBASE reloaded with enhancements  |
| NEWS | 19 | APR 04 | STN AnaVist, Version 1, to be discontinued   |
| NEWS | 20 | APR 15 | WPIDS, WPINDEX, and WPIX enhanced with new predefined hit display formats                                  |
| NEWS | 21 | APR 28 | EMBASE Controlled Term thesaurus enhanced  |
| NEWS | 22 | APR 28 | IMSRESEARCH reloaded with enhancements   |
| NEWS | 23 | MAY 30 | INPAFAMDB now available on STN for patent family searching   |
| NEWS | 24 | MAY 30 | DGENE, PCTGEN, and USGENE enhanced with new homology sequence search option                                |
| NEWS | 25 | JUN 06 | EPFULL enhanced with 260,000 English abstracts   |
| NEWS | 26 | JUN 06 | KOREAPAT updated with 41,000 documents   |
| NEWS | 27 | JUN 13 | USPATFULL and USPAT2 updated with 11-character patent numbers for U.S. applications                        |
| NEWS | 28 | JUN 19 | CAS REGISTRY includes selected substances from web-based collections                                       |
| NEWS | 29 | JUN 25 | CA/Caplus and USPAT databases updated with IPC reclassification data                                       |
| NEWS | 30 | JUN 30 | AEROSPACE enhanced with more than 1 million U.S. patent records  |
| NEWS | 31 | JUN 30 | EMBASE, EMBAL, and LEMBASE updated with additional options to display authors and affiliated organizations |
| NEWS | 32 | JUN 30 | STN on the Web enhanced with new STN AnaVist Assistant and BLAST plug-in                                   |
| NEWS | 33 | JUN 30 | STN AnaVist enhanced with database content from EPFULL   |

NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3,  
AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.

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FILE COVERS 1907 - 7 Jul 2008 VOL 149 ISS 2  
FILE LAST UPDATED: 6 Jul 2008 (20080706/ED)

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=> e us2005-551572/apps  
E1 1 US2005-551558/AP  
E2 2 US2005-551559/AP  
E3 1 --> US2005-551572/AP  
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E12 1 US2005-551593/AP

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L1 1 US2005-551572/AP

=> sel rn l1

E1 THROUGH E16 ASSIGNED

=> file reg

COST IN U.S. DOLLARS

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2.69

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STRUCTURE FILE UPDATES: 6 JUL 2008 HIGHEST RN 1032827-24-9

DICTIONARY FILE UPDATES: 6 JUL 2008 HIGHEST RN 1032827-24-9

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<http://www.cas.org/support/stngen/stdoc/properties.html>

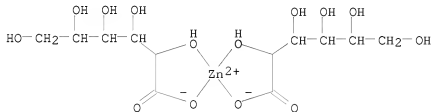
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1 12619-70-4/BI  
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1 149882-10-0/BI  
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=> d scan 12

L2 16 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN  
 IN Zinc, bis(D-gluconato-κO1,κO2)-, (T-4)-  
 MF C12 H22 O14 Zn  
 CI CCS, COM



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):16

L2 16 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN  
 IN Copper  
 ADDITIONAL NAMES NOT AVAILABLE IN THIS FORMAT  
 MF Cu  
 CI COM

Cu

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

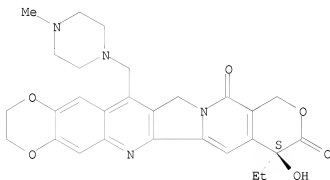
L2 16 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN  
 IN Cyclodextrin  
 MF Unspecified  
 CI COM, MAN

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L2 16 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN  
IN 11H-1,4-Dioxino[2,3-g]pyrano[3',4':6,7]indolizino[1,2-b]quinoline-  
9,12(8H,14H)-dione, 8-ethyl-2,3-dihydro-8-hydroxy-15-[(4-methyl-1-  
piperazinyl)methyl]-, (8S)-  
MF C28 H30 N4 O6  
CI COM

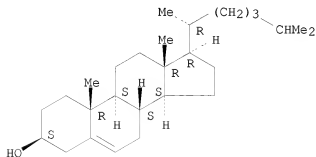
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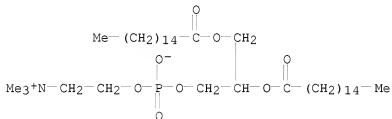
L2 16 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN  
IN Cholest-5-en-3-ol (3 $\beta$ )-  
MF C27 H46 O  
CI COM

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L2 16 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN  
 IN 3,5,9-Trioxa-4-phosphapentacosan-1-aminium, 4-hydroxy-N,N,N-trimethyl-10-  
 oxo-7-[(1-oxohexadecyl)oxy]-, inner salt, 4-oxide  
 MF C40 H80 N O8 P  
 CI COM



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

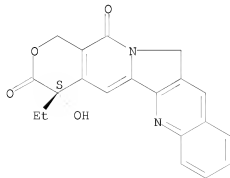
L2 16 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN  
 IN Cobalt  
 MF Co  
 CI COM

Co

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L2 16 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN  
 IN 1H-Pyrano[3',4':6,7]indolizino[1,2-b]quinoline-3,14(4H,12H)-dione,  
 4-ethyl-4-hydroxy-, (4S)-  
 MF C20 H16 N2 O4  
 CI COM

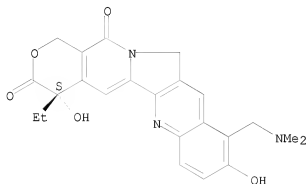
Absolute stereochemistry. Rotation (+).



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L2 16 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN  
IN 1H-Pyrano[3',4':6,7]indolizino[1,2-b]quinoline-3,14(4H,12H)-dione,  
10-[(dimethylamino)methyl]-4-ethyl-4,9-dihydroxy-, (4S)-  
MF C23 H23 N3 O5  
CI COM

Absolute stereochemistry.

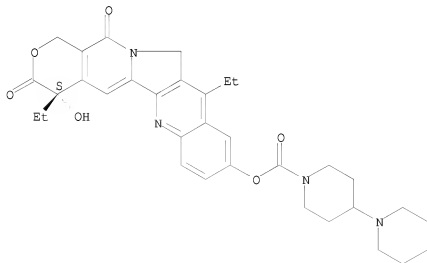


\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L2 16 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN  
IN Uridine, 2'-deoxy-5-fluoro-, mixt. with (4S)-4,11-diethyl-3,4,12,14-  
tetrahydro-4-hydroxy-3,14-dioxo-1H-pyrano[3',4':6,7]indolizino[1,2-  
b]quinolin-9-yl [1,4'-bipiperidin]-1'-carboxylate  
MF C33 H38 N4 O6 . C9 H11 F N2 O5  
CI MXS

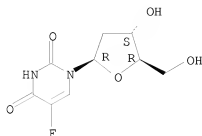
CM 1

Absolute stereochemistry. Rotation (+).



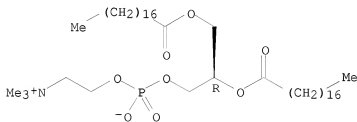
CM 2

Absolute stereochemistry.



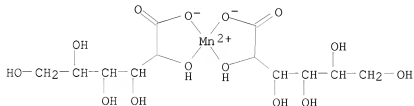
L2 16 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN  
IN 3,5,9-Trioxa-4-phosphaheptacosan-1-aminium, 4-hydroxy-N,N,N-trimethyl-10-  
oxo-7-[(1-oxooctadecyl)oxy]-, inner salt, 4-oxide, (7R)-  
MF C44 H88 N 08 P  
CI COM

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L2 16 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN  
IN Manganese, bis(D-gluconato-κO1,κO2)-, (T-4)-  
MF C12 H22 Mn O14  
CI CCS, COM



L2 16 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN  
IN Zinc



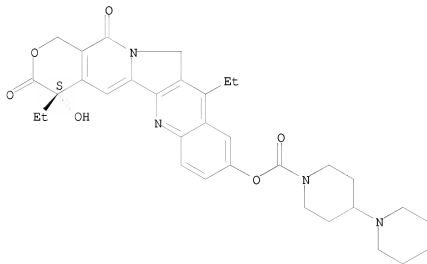
MF Zn  
CI COM

Zn

\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L2 16 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN  
IN [1,4'-Bipiperidine]-1'-carboxylic acid, (4S)-4,11-diethyl-3,4,12,14-tetrahydro-4-hydroxy-3,14-dioxo-1H-pyrano[3',4':6,7]indolizino[1,2-b]quinolin-9-yl ester  
MF C33 H38 N4 O6  
CI COM

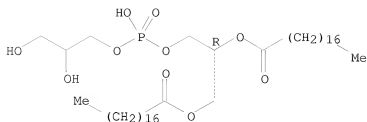
Absolute stereochemistry. Rotation (+).



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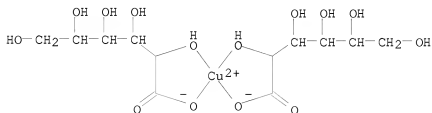
L2 16 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN  
IN Octadecanoic acid, (1R)-1-[[[(2,3-dihydroxypropoxy)hydroxyphosphinyl]oxy]methyl]-1,2-ethanediyl ester  
MF C42 H83 O10 P  
CI COM

Absolute stereochemistry.



\*\*PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT\*\*

L2 16 ANSWERS REGISTRY COPYRIGHT 2008 ACS on STN  
 IN Copper, bis(D-gluconato-κO1,κO2)-  
 MF C12 H22 Cu O14  
 CI CCS, COM



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ALL ANSWERS HAVE BEEN SCANNED

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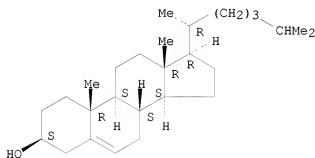
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FILE 'SCISEARCH' ENTERED AT 14:58:32 ON 07 JUL 2008  
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=> s 12  
 L3 1567193 L2

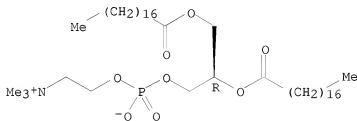
=> s l3 and ("lactone ring")  
 L4 329 L3 AND ("LACTONE RING")  
 => s l4 and ("transition metal")  
 L5 4 L4 AND ("TRANSITION METAL")  
 => d l5 1-4 hitstr ibib all  
 L5 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN  
 IT 57-88-5, Cholesterol, biological studies 816-94-4  
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); THU  
 (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)  
 (transition metal-mediated liposomal encapsulation  
 of irinotecan stabilizes the drug in therapeutically active lactone  
 conformation)  
 RN 57-88-5 CAPLUS  
 CN Cholest-5-en-3-ol (3 $\beta$ )- (CA INDEX NAME)

Absolute stereochemistry.



RN 816-94-4 CAPLUS  
 CN 3,5,9-Trioxa-4-phosphaheptacosan-1-aminium, 4-hydroxy-N,N-trimethyl-10-oxo-7-[(1-oxooctadecyl)oxy]-, inner salt, 4-oxide, (7R)- (CA INDEX NAME)

Absolute stereochemistry.



ACCESSION NUMBER: 2006:1265519 CAPLUS  
 DOCUMENT NUMBER: 146:107117  
 TITLE: Transition Metal-Mediated  
 Liposomal Encapsulation of Irinotecan (CPT-11)  
 Stabilizes the Drug in the Therapeutically Active  
 Lactone Conformation  
 AUTHOR(S): Ramsay, Euan; Alnajim, Jehan; Anantha, Malathi;  
 Taggar, Aman; Thomas, Anitha; Edwards, Katarina;  
 Karlsson, Goeran; Webb, Murray; Bally, Marcel  
 CORPORATE SOURCE: Department of Advanced Therapeutics, BC Cancer Agency,  
 Vancouver, BC, V5Z 1L3, Can.  
 SOURCE: Pharmaceutical Research (2006), 23(12), 2799-2808

CODEN: PHREEB; ISSN: 0724-8741

PUBLISHER: Springer  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AN 2006:1265519 CAPLUS

DN 146:107117

ED Entered STN: 05 Dec 2006

TI Transition Metal-Mediated Liposomal Encapsulation of  
Irinotecan (CPT-11) Stabilizes the Drug in the Therapeutically Active  
Lactone Conformation

AU Ramsay, Euan; Alnajim, Jehan; Anantha, Malathi; Taggar, Aman; Thomas,  
Anitha; Edwards, Katarina; Karlsson, Goeran; Webb, Murray; Bally, Marcel  
CS Department of Advanced Therapeutics, BC Cancer Agency, Vancouver, BC, V5Z  
1L3, Can.

SO Pharmaceutical Research (2006), 23(12), 2799-2808

CODEN: PHREEB; ISSN: 0724-8741

PB Springer

DT Journal

LA English

CC 63-5 (Pharmaceuticals)

AB To determine whether entrapped transition metals could  
mediate the active encapsulation of the anticancer drug irinotecan into  
preformed liposomes. Further, to establish that metal complexation could  
stabilize liposomal irinotecan in the therapeutically active lactone  
conformation. Irinotecan was added to preformed 1,2-distearoyl-sn-glycero-  
phosphocholine/cholesterol liposomes prepared in CuSO<sub>4</sub>, ZnSO<sub>4</sub>, MnSO<sub>4</sub>, or  
CoSO<sub>4</sub> soins., and drug encapsulation was determined over time. The roles of  
the transmembrane pH gradient and internal pH were evaluated. TLC and  
HPLC were used to monitor drug stability and liposome morphol. was  
assessed by cryo-TEM. Irinotecan was rapidly and efficiently loaded into  
preformed liposomes prepared in unbuffered (.apprx.pH 3.5) 300 mM CuSO<sub>4</sub> or  
ZnSO<sub>4</sub>. For Cu-containing liposomes, results suggested that irinotecan loading  
occurred when the interior pH and the exterior pH were matched; however,  
addition of nigericin to collapse any residual transmembrane pH gradient  
inhibited irinotecan loading. Greater than 90% of the encapsulated drug  
was in its active lactone form and cryo-TEM anal. indicated dark  
intravesicular electron-dense spots. Irinotecan is stably entrapped in  
the active lactone conformation within preformed copper-containing liposomes  
as a result of metal-drug complexation.

ST transition metal liposome encapsulation irinotecan

lactone conformation antitumor

IT Conformation

(lactone ring; transition metal  
-mediated liposomal encapsulation of irinotecan stabilizes the drug in  
therapeutically active lactone conformation)

IT Pharmaceutical liposomes

(large unilamellar liposomes; transition metal  
-mediated liposomal encapsulation of irinotecan stabilizes the drug in  
therapeutically active lactone conformation)

IT Complexation

(metal; transition metal-mediated liposomal  
encapsulation of irinotecan stabilizes the drug in therapeutically  
active lactone conformation)

IT Encapsulation

(microencapsulation; transition metal-mediated  
liposomal encapsulation of irinotecan stabilizes the drug in  
therapeutically active lactone conformation)

IT Antitumor agents

Stability

pH

(transition metal-mediated liposomal encapsulation

of irinotecan stabilizes the drug in therapeutically active lactone conformation)

IT Coordination compounds

Transition metals, biological studies

RL: PEP (Physical, engineering or chemical process); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses) (transition metal-mediated liposomal encapsulation of irinotecan stabilizes the drug in therapeutically active lactone conformation)

IT 28380-24-7, Nigericin

RL: PEP (Physical, engineering or chemical process); PROC (Process) (transition metal-mediated liposomal encapsulation of irinotecan stabilizes the drug in therapeutically active lactone conformation)

IT 57-88-5, Cholesterol, biological studies 816-94-4

7733-02-0, Zinc sulfate 7758-98-7, Copper sulfate, biological studies 7785-87-7, Manganese sulfate 10124-43-3, Cobalt sulfate 100286-90-6, Camptosar

RL: PEP (Physical, engineering or chemical process); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses) (transition metal-mediated liposomal encapsulation of irinotecan stabilizes the drug in therapeutically active lactone conformation)

RE.CNT 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE

- (1) Abraham, S; Biochim Biophys Acta 2002, V1565, P41 CAPLUS
- (2) Abraham, S; J Control Release 2004, V96, P449 CAPLUS
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L5 ANSWER 2 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN

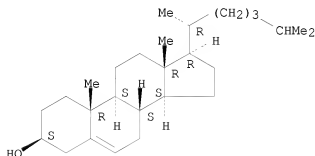
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7440-48-4D, Cobalt, salts 7440-50-8D, Copper, salts  
7440-66-6D, Zinc, salts 7689-03-4, Camptothecin  
12619-70-4, Cyclodextrins 97682-44-5, Irinotecan  
123948-87-8, Topotecan 149882-10-0, Lurtotecan  
217939-97-4, DSPG 773073-40-8

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(pharmaceutical compns. containing active agents having lactone group and  
transition metal ions)

RN 57-88-5 CAPLUS

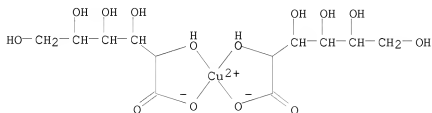
CN Cholest-5-en-3-ol (3 $\beta$ )- (CA INDEX NAME)

Absolute stereochemistry.



RN 527-09-3 CAPLUS

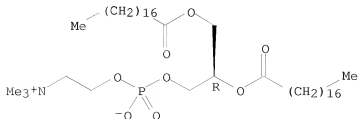
CN Copper, bis(D-gluconato-κO1,κO2)- (CA INDEX NAME)



RN 816-94-4 CAPLUS

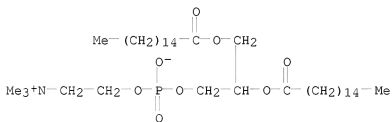
CN 3,5,9-Trioxa-4-phosphaheptacosan-1-aminium, 4-hydroxy-N,N,N-trimethyl-10-oxo-7-[(1-oxooctadecyl)oxy]-, inner salt, 4-oxide, (7R)- (CA INDEX NAME)

Absolute stereochemistry.



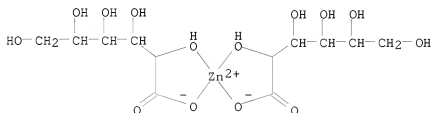
RN 2644-64-6 CAPLUS

CN 3,5,9-Trioxa-4-phosphapentacosan-1-aminium, 4-hydroxy-N,N,N-trimethyl-10-oxo-7-[(1-oxohexadecyl)oxy]-, inner salt, 4-oxide (CA INDEX NAME)



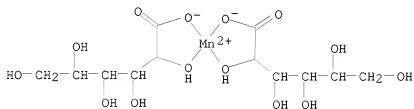
RN 4468-02-4 CAPLUS

CN Zinc, bis(D-gluconato-κO1,κO2)-, (T-4)- (CA INDEX NAME)



RN 6485-39-8 CAPLUS

CN Manganese, bis(D-gluconato-κO1,κO2)-, (T-4)- (CA INDEX NAME)



RN 7440-48-4 CAPLUS

CN Cobalt (CA INDEX NAME)

Co

RN 7440-50-8 CAPLUS

CN Copper (CA INDEX NAME)

Cu

RN 7440-66-6 CAPLUS

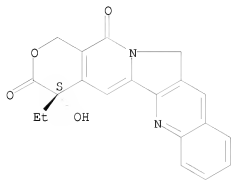
CN Zinc (CA INDEX NAME)

Zn

RN 7689-03-4 CAPLUS

CN 1H-Pyrano[3',4':6,7]indolizino[1,2-b]quinoline-3,14(4H,12H)-dione,  
4-ethyl-4-hydroxy-, (4S)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RN 12619-70-4 CAPLUS

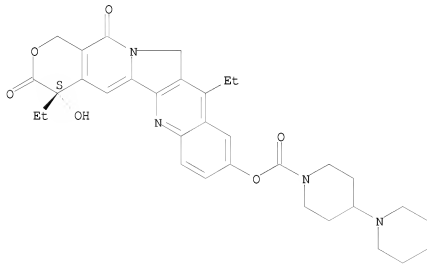
CN Cyclodextrin (CA INDEX NAME)

\*\*\* STRUCTURE DIAGRAM IS NOT AVAILABLE \*\*\*

RN 97682-44-5 CAPLUS

CN [1,4'-Bipiperidine]-1'-carboxylic acid, (4S)-4,11-diethyl-3,4,12,14-tetrahydro-4-hydroxy-3,14-dioxo-1H-pyrano[3',4':6,7]indolizino[1,2-b]quinolin-9-yl ester (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).

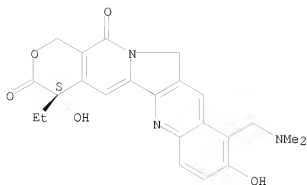


RN 123948-87-8 CAPLUS

CN 1H-Pyrano[3',4':6,7]indolizino[1,2-b]quinoline-3,14(4H,12H)-dione,  
10-[(dimethylamino)methyl]-4-ethyl-4,9-dihydroxy-, (4S)- (CA INDEX NAME)

Absolute stereochemistry.

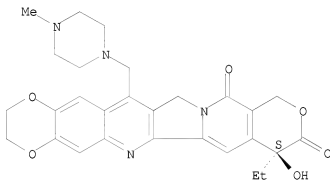




RN 149882-10-0 CAPLUS

CN 11H-1,4-Dioxino[2,3-g]pyrano[3',4':6,7]indolizino[1,2-b]quinoline-9,12(8H,14H)-dione, 8-ethyl-2,3-dihydro-8-hydroxy-15-[(4-methyl-1-piperazinyl)methyl]-, (8S)- (CA INDEX NAME)

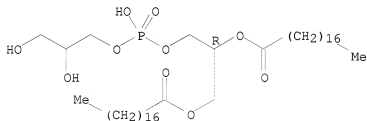
Absolute stereochemistry. Rotation (+).



RN 217939-97-4 CAPLUS

CN Octadecanoic acid, (1R)-1-[[[(2,3-dihydroxypropoxy)hydroxyphosphinyl]oxy]methyl]-1,2-ethanediyl ester (CA INDEX NAME)

Absolute stereochemistry.



RN 773073-40-8 CAPLUS

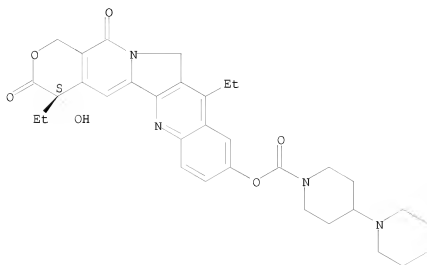
CN Uridine, 2'-deoxy-5-fluoro-, mixt. with (4S)-4,11-diethyl-3,4,12,14-tetrahydro-4-hydroxy-3,14-dioxo-1H-pyrano[3',4':6,7]indolizino[1,2-b]quinolin-9-yl [1,4'-bipiperidine]-1'-carboxylate (CA INDEX NAME)

CM 1

CRN 97682-44-5

CMF C33 H38 N4 O6

Absolute stereochemistry. Rotation (+).

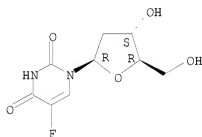


CM 2

CRN 50-91-9

CMF C9 H11 F N2 O5

Absolute stereochemistry.



ACCESSION NUMBER: 2004:857361 CAPLUS

DOCUMENT NUMBER: 141:337749

TITLE: Pharmaceutical compositions containing active agents having a lactone group and transition metal ions

INVENTOR(S): Tardi, Paul

PATENT ASSIGNEE(S): Celator Technologies, Inc., Can.

SOURCE: PCT Int. Appl., 39 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO.    | KIND  | DATE     | APPLICATION NO. | DATE     |
|---------------|-------|----------|-----------------|----------|
| -----         | ----- | -----    | -----           | -----    |
| WO 2004087104 | A1    | 20041014 | WO 2004-CA505   | 20040402 |

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RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BU, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

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 EP 1608338 A1 20051228 EP 2004-725256 20040402

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR

US 20060193902 A1 20060831 US 2005-551572 20050929

PRIORITY APPLN. INFO.: US 2003-460171P P 20030402  
 WO 2004-CA505 W 20040402

AN 2004:857361 CAPLUS  
 DN 141:337749  
 ED Entered STN: 18 Oct 2004  
 TI Pharmaceutical compositions containing active agents having a lactone group and transition metal ions  
 IN Tardi, Paul  
 PA Celator Technologies, Inc., Can.  
 SO PCT Int. Appl., 39 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 IC ICM A61K009-127  
 ICS A61K009-51; A61K031-4745; A61K031-7072; A61K047-02  
 CC 63-6 (Pharmaceuticals)  
 FAN.CNT 1

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
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CLASS

| PATENT NO.    | CLASS | PATENT FAMILY CLASSIFICATION CODES  |
|---------------|-------|---|
| WO 2004087104 | ICM   | A61K009-127   |
|               | ICS   | A61K009-51; A61K031-4745; A61K031-7072; A61K047-02                                      |
|               | IPCI  | A61K009-127 [ICM,7]; A61K009-51 [ICS,7]; A61K031-4745 [ICS,7]; A61K031-4738 [ICS,7,C*]; |

A61K0031-7072 [ICS,7]; A61K0031-7042 [ICS,7,C\*];  
 A61K0047-02 [ICS,7]  
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 A61K0031-7072 [I,A]; A61K0033-34 [I,C\*]; A61K0033-34  
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 A61K031/7072+M; A61K033/34+M; A61K047/02  
 US 20060193902 IPCI A61K0031-4745 [I,A]; A61K0031-4738 [I,C\*]; A61K0009-127  
 [I,A]  
 NCL 424/450.000; 514/283.000; 977/907.000  
 ECLA A61K009/00; A61K031/4745  
 AB Compns. and methods for stabilizing an active agent containing one or more  
 acetone rings are disclosed. The compns., including pharmaceutical  
 compns., ensure that the lactone ring of the active  
 agent is stabilized in the active, ring-closed form due to the inclusion  
 of a transition metal ion. Copper, zinc and manganese  
 gluconate was used to encapsulate irinotecan into liposomes.  
 ST pharmaceutical liposome lactone transition metal  
 complex stability; copper zinc manganese gluconate irinotecan liposome  
 IT Drug delivery systems  
 (emulsions; pharmaceutical compns. containing active agents having lactone  
 group and transition metal ions)  
 IT Micelles  
 (lipid, for drug delivery; pharmaceutical compns. containing active agents  
 having lactone group and transition metal ions)  
 IT Drug delivery systems  
 (liposomes, injections; pharmaceutical compns. containing active agents  
 having lactone group and transition metal ions)  
 IT Drug delivery systems  
 (microparticles, polymer; pharmaceutical compns. containing active agents  
 having lactone group and transition metal ions)  
 IT Drug delivery systems  
 (nanoparticles, polymer; pharmaceutical compns. containing active agents  
 having lactone group and transition metal ions)  
 IT Stability  
 (pharmaceutical compns. containing active agents having lactone group and  
 transition metal ions)  
 IT Lactones  
 RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES  
 (Uses)

(pharmaceutical compns. containing active agents having lactone group and transition metal ions)

IT Liposomes  
(unilamellar; pharmaceutical compns. containing active agents having lactone group and transition metal ions)

IT Transition metal complexes  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(with the active agent; pharmaceutical compns. containing active agents having lactone group and transition metal ions)

IT 57-88-5, Cholesterol, biological studies 527-09-3, Copper gluconate 816-94-4, DSPC 2644-64-6, DPPC 4468-02-4, Zinc gluconate 6485-39-8, Manganese gluconate 7440-48-4D, Cobalt, salts 7440-50-8D, Copper, salts 7440-66-6D, Zinc, salts 7689-03-4, Camptothecin 12619-70-4, Cyclodextrins 97682-44-5, Irinotecan 123948-87-8, Topotecan 149882-10-0, Lurtotecan 217939-97-4, DSPG 773073-40-8  
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(pharmaceutical compns. containing active agents having lactone group and transition metal ions)

RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD

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(1) Giovannella, B; US 20020131997 A1 2002  
(2) Henderson, R; US 5364845 A 1994 CAPLUS  
(3) Hertzberg, R; BIOCHEMISTRY 1989, V28(11), P4629 CAPLUS  
(4) Kostova, I; ARCHIV DER PHARMAZIE (WEINHEIM) 2001, V344(5), P157  
(5) Kostova, I; EUROPEAN JOURNAL OF MEDICINAL CHEMISTRY 1999, V34(1), P63 CAPLUS  
(6) Kuwahara, J; BIOCHEMISTRY 1986, V25(6), P1216 CAPLUS  
(7) Kuwahara, J; NUCLEIC ACIDS SYMPOSIUM SERIES 1985, 16, P201 MEDLINE  
(8) Manolov, I; EUROPEAN JOURNAL OF MEDICINAL CHEMISTRY 1999, V34(10), P853 CAPLUS  
(9) Pearson, D; US 20020061870 A1 2002  
(10) Shew, C; WO 03028696 A 2003 CAPLUS  
(11) Tenovuo, J; JOURNAL OF ORAL REHABILITATION 1997, V24(5), P325 CAPLUS  
(12) Webb, M; WO 0185131 A 2001 CAPLUS  
(13) Webb, M; WO 03028697 A 2003 CAPLUS

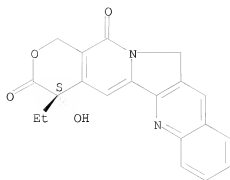
L5 ANSWER 3 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN

IT 7689-03-4P, 20(S)-Camptothecin  
RL: IMF (Industrial manufacture); PUR (Purification or recovery); SPN (Synthetic preparation); PREP (Preparation)  
(process for purifying 20(S)-camptothecin via palladium catalyzed hydrogenation)

RN 7689-03-4 CAPLUS

CN 1H-Pyrano[3',4':6,7]indolizino[1,2-b]quinoline-3,14(4H,12H)-dione, 4-ethyl-4-hydroxy-, (4S)- (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



ACCESSION NUMBER: 2002:616406 CAPLUS  
 DOCUMENT NUMBER: 137:155091  
 TITLE: Process for purifying 20(S)-camptothecin via catalytic hydrogenation  
 INVENTOR(S): Sobotta, Rainer; Rapp, Armin  
 PATENT ASSIGNEE(S): Germany  
 SOURCE: U.S. Pat. Appl. Publ., 5 pp.  
 CODEN: USXXCO  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO.  | DATE     |
|---|------|----------|------------------|----------|
| US 20020111489  | A1   | 20020815 | US 2002-51707    | 20020117 |
| US 6476225  | B2   | 20021105 |                  |          |
| DE 10106969   | C1   | 20021002 | DE 2001-10106969 | 20010215 |
| CA 2435372  | A1   | 20020822 | CA 2002-2435372  | 20020209 |
| WO 2002064597   | A2   | 20020822 | WO 2002-EP1375   | 20020209 |
| WO 2002064597   | A3   | 20021024 |                  |          |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW |      |          |                  |          |
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| AU 2002244711   | A1   | 20020828 | AU 2002-244711   | 20020209 |
| AU 2002244711   | B2   | 20070531 |                  |          |
| EP 1362051  | A2   | 20031119 | EP 2002-712902   | 20020209 |
| EP 1362051  | B1   | 20050803 |                  |          |
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| EE 200300389  | A    | 20031215 | EE 2003-389      | 20020209 |
| HU 2003003030   | A2   | 20031229 | HU 2003-3030     | 20020209 |
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| CN 1491228  | A    | 20040421 | CN 2002-804991   | 20020209 |
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| JP 2004521909   | T    | 20040722 | JP 2002-564528   | 20020209 |
| AT 301124   | T    | 20050815 | AT 2002-712902   | 20020209 |
| ES 2246389  | T3   | 20060216 | ES 2002-712902   | 20020209 |
| NZ 528039   | A    | 20060224 | NZ 2002-528039   | 20020209 |
| ZA 2003005364   | A    | 20040428 | ZA 2003-5364     | 20030711 |

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| IN 2003DN01197 | A  | 20050225 | IN 2003-DN1197 | 20030730 |
| BG 108064      | A  | 20050430 | BG 2003-108064 | 20030806 |
| MX 2003PA07194 | A  | 20031204 | MX 2003-PA7194 | 20030812 |
| KR 813087      | B1 | 20080317 | KR 2003-710605 | 20030812 |
| NO 2003003614  | A  | 20030814 | NO 2003-3614   | 20030814 |
| HK 1064092     | A1 | 20060203 | HK 2004-106806 | 20040908 |

PRIORITY APPLN. INFO.: CASREACT 137:155091; MARPAT 137:155091

|                  |   |          |
|------------------|---|----------|
| DE 2001-10106969 | A | 20010215 |
| US 2001-274354P  | P | 20010308 |
| WO 2002-EP1375   | W | 20020209 |

OTHER SOURCE(S):

AN 2002:616406 CAPLUS  
 DN 137:155091  
 ED Entered STN: 16 Aug 2002  
 TI Process for purifying 20(S)-camptothecin via catalytic hydrogenation  
 IN Sobotta, Rainer; Rapp, Armin  
 PA Germany  
 SO U.S. Pat. Appl. Publ., 5 pp.  
 CODEN: USXXCO  
 DT Patent  
 LA English  
 IC ICM C07D491-14  
 INCL 546048000  
 CC 31-5 (Alkaloids)

Section cross-reference(s): 11

FAN.CNT 1

|    | PATENT NO.  | KIND | DATE     | APPLICATION NO.  | DATE     |
|----|---|------|----------|------------------|----------|
| PI | US 20020111489  | A1   | 20020815 | US 2002-51707    | 20020117 |
|    | US 6476225  | B2   | 20021105 |                  |          |
|    | DE 10106969   | C1   | 20021002 | DE 2001-10106969 | 20010215 |
|    | CA 2435372  | A1   | 20020822 | CA 2002-2435372  | 20020209 |
|    | WO 2002064597   | A2   | 20020822 | WO 2002-EP1375   | 20020209 |
|    | WO 2002064597   | A3   | 20021024 |                  |          |
|    | W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW |      |          |                  |          |
|    | RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG  |      |          |                  |          |
|    | AU 2002244711   | A1   | 20020828 | AU 2002-244711   | 20020209 |
|    | AU 2002244711   | B2   | 20070531 |                  |          |
|    | EP 1362051  | A2   | 20031119 | EP 2002-712902   | 20020209 |
|    | EP 1362051  | B1   | 20050803 |                  |          |
|    | R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR   |      |          |                  |          |
|    | EE 200300389  | A    | 20031215 | EE 2003-389      | 20020209 |
|    | HU 2003003030   | A2   | 20031229 | HU 2003-3030     | 20020209 |
|    | HU 2003003030   | A3   | 20041129 |                  |          |
|    | CN 1491228  | A    | 20040421 | CN 2002-804991   | 20020209 |
|    | BR 2002007261   | A    | 20040615 | BR 2002-7261     | 20020209 |
|    | JP 2004521909   | T    | 20040722 | JP 2002-564528   | 20020209 |
|    | AT 301124   | T    | 20050815 | AT 2002-712902   | 20020209 |
|    | ES 2246389  | T3   | 20060216 | ES 2002-712902   | 20020209 |
|    | NZ 528039   | A    | 20060224 | NZ 2002-528039   | 20020209 |
|    | ZA 2003005364   | A    | 20040428 | ZA 2003-5364     | 20030711 |
|    | IN 2003DN01197  | A    | 20050225 | IN 2003-DN1197   | 20030730 |
|    | BG 108064   | A    | 20050430 | BG 2003-108064   | 20030806 |
|    | MX 2003PA07194  | A    | 20031204 | MX 2003-PA7194   | 20030812 |

|      |                  |    |          |                |          |
|------|------------------|----|----------|----------------|----------|
|      | KR 813087        | B1 | 20080317 | KR 2003-710605 | 20030812 |
|      | NO 2003003614    | A  | 20030814 | NO 2003-3614   | 20030814 |
|      | HK 1064092       | A1 | 20060203 | HK 2004-106806 | 20040908 |
| PRAI | DE 2001-10106969 | A  | 20010215 |                |          |
|      | US 2001-274354P  | P  | 20010308 |                |          |
|      | WO 2002-EP1375   | W  | 20020209 |                |          |

CLASS

| PATENT NO.     | CLASS | PATENT FAMILY CLASSIFICATION CODES  |
|----------------|-------|---|
| US 20020111489 | ICM   | C07D491-14  |
|                | INCL  | 546048000   |
|                | IPCI  | C07D0491-14 [ICM,7]; C07D0491-00 [ICM,7,C*]   |
|                | IPCR  | C07D0491-00 [I,C*]; C07D0491-14 [I,A]; C07D0491-22 [I,A]  |
|                | NCL   | 546/048.000   |
|                | ECLA  | C07D491/14+221C+221B+209C;<br>C07D491/22+311B+221C+221B+209C                                    |
| DE 10106969    | IPCI  | C07D0491-22 [ICM,7]; C07D0491-00 [ICM,7,C*]   |
|                | IPCR  | B01D0009-00 [I,C*]; B01D0009-02 [I,A]; C07D0491-00 [I,C*]; C07D0491-14 [I,A]; C07D0491-22 [I,A] |
|                | ECLA  | C07D491/14+221C+221B+209C;<br>C07D491/22+311B+221C+221B+209C                                    |
| CA 2435372     | IPCI  | C07D0491-04 [ICM,7]; C07D0491-00 [ICM,7,C*]   |
|                | IPCR  | B01D0009-00 [I,C*]; B01D0009-02 [I,A]; C07D0491-00 [I,C*]; C07D0491-14 [I,A]; C07D0491-22 [I,A] |
| WO 2002064597  | IPCI  | C07D0491-04 [ICM,7]; C07D0491-00 [ICM,7,C*]   |
|                | IPCR  | B01D0009-00 [I,C*]; B01D0009-02 [I,A]; C07D0491-00 [I,C*]; C07D0491-14 [I,A]; C07D0491-22 [I,A] |
|                | ECLA  | C07D491/14+221C+221B+209C;<br>C07D491/22+311B+221C+221B+209C                                    |
| AU 2002244711  | IPCI  | C07D0491-00 [I,C*]; C07D0491-14 [I,A]; B01D0009-00 [I,C*]; B01D0009-02 [I,A]; C07D0491-22 [I,A] |
|                | IPCR  | C07D0491-00 [I,C*]; C07D0491-14 [I,A]; B01D0009-00 [I,C*]; B01D0009-02 [I,A]; C07D0491-22 [I,A] |
|                | ECLA  | C07D491/14+221C+221B+209C;<br>C07D491/22+311B+221C+221B+209C                                    |
| EP 1362051     | IPCI  | C07D0491-04 [ICM,7]; C07D0491-00 [ICM,7,C*]   |
|                | IPCR  | B01D0009-00 [I,C*]; B01D0009-02 [I,A]; C07D0491-00 [I,C*]; C07D0491-14 [I,A]; C07D0491-22 [I,A] |
|                | ECLA  | C07D491/14+221C+221B+209C;<br>C07D491/22+311B+221C+221B+209C                                    |
| EE 200300389   | IPCI  | C07D0491-04 [ICM,7]; C07D0491-00 [ICM,7,C*]   |
|                | IPCR  | B01D0009-00 [I,C*]; B01D0009-02 [I,A]; C07D0491-00 [I,C*]; C07D0491-14 [I,A]; C07D0491-22 [I,A] |
|                | ECLA  | C07D491/14+221C+221B+209C;<br>C07D491/22+311B+221C+221B+209C                                    |
| HU 2003003030  | IPCI  | C07D0491-04 [ICM,7]; C07D0491-00 [ICM,7,C*]   |
|                | IPCR  | B01D0009-00 [I,C*]; B01D0009-02 [I,A]; C07D0491-00 [I,C*]; C07D0491-14 [I,A]; C07D0491-22 [I,A] |
|                | ECLA  | C07D491/14+221C+221B+209C;<br>C07D491/22+311B+221C+221B+209C                                    |
| CN 1491228     | IPCI  | C07D0491-04 [ICM,7]; C07D0491-00 [ICM,7,C*]   |
|                | IPCR  | B01D0009-00 [I,C*]; B01D0009-02 [I,A]; C07D0491-00 [I,C*]; C07D0491-14 [I,A]; C07D0491-22 [I,A] |
|                | ECLA  | C07D491/14+221C+221B+209C;<br>C07D491/22+311B+221C+221B+209C                                    |
| BR 2002007261  | IPCI  | C07D0491-04 [ICM,7]; C07D0491-00 [ICM,7,C*]   |
|                | IPCR  | B01D0009-00 [I,C*]; B01D0009-02 [I,A]; C07D0491-00 [I,C*]; C07D0491-14 [I,A]; C07D0491-22 [I,A] |
| JP 2004521909  | IPCI  | C07D0491-22 [ICM,7]; C07D0491-00 [ICM,7,C*];<br>B01D0009-02 [ICS,7]; B01D0009-00 [ICS,7,C*]     |



IPCR C07D0491-00 [I,C\*]; C07D0491-14 [I,A]; C07D0491-22 [I,A]

FTERM 4C050/AA01; 4C050/AA07; 4C050/BB04; 4C050/CC07; 4C050/DD02; 4C050/EE02; 4C050/FF02; 4C050/GG03; 4C050/HH01

AT 301124 IPCI C07D0491-04 [ICM,7]; C07D0491-00 [ICM,7,C\*]

ECLA C07D491/14+221C+221B+209C; C07D491/22+311B+221C+221B+209C

ES 2246389 IPCI C07D0491-04 [ICS,4]; C07D0491-00 [ICS,4,C\*]

IPCR B01D0009-00 [I,C\*]; B01D0009-02 [I,A]; C07D0491-00 [I,C\*]; C07D0491-14 [I,A]; C07D0491-22 [I,A]

ECLA C07D491/14+221C+221B+209C; C07D491/22+311B+221C+221B+209C

NZ 528039 IPCI C07D0491-04 [ICS,7]; C07D0491-00 [ICS,7,C\*]; C07C0007-163 [ICS,7]; C07C0007-17 [ICS,7]; C07C0007-00 [ICS,7,C\*]

IPCR B01D0009-00 [I,C\*]; B01D0009-02 [I,A]; C07D0491-00 [I,C\*]; C07D0491-14 [I,A]; C07D0491-22 [I,A]

ECLA C07D491/14+221C+221B+209C; C07D491/22+311B+221C+221B+209C

ZA 2003005364 IPCI C07D [ICM,7]

IN 2003DN01197 IPCI C07D0491-04 [ICM,7]; C07D0491-00 [ICM,7,C\*]

BG 108064 IPCI C07D0491-04 [ICM,7]; C07D0491-00 [ICM,7,C\*]

IPCR C07D0491-00 [I,C\*]; C07D0491-14 [I,A]; C07D0491-22 [I,A]

MX 2003PA07194 IPCI C07D0491-04 [ICM,7]; C07D0491-00 [ICM,7,C\*]

KR 813087 IPCI C07D0491-052 [I,A]; C07D0491-00 [I,C\*]

NO 2003003614 IPCI C07D [ICM,7]

IPCR B01D0009-00 [I,C\*]; B01D0009-02 [I,A]; C07D0491-00 [I,C\*]; C07D0491-14 [I,A]; C07D0491-22 [I,A]

HK 1064092 IPCI C07D [ICS,7]

IPCR B01D0009-00 [I,C\*]; B01D0009-02 [I,A]; C07D0491-00 [I,C\*]; C07D0491-14 [I,A]; C07D0491-22 [I,A]

ECLA C07D491/14+221C+221B+209C; C07D491/22+311B+221C+221B+209C

OS CASREACT 137:155091; MARPAT 137:155091

AB A process for purifying 20(S)-camptothecin, comprising the following steps: (a) combining an aqueous base and a starting material containing 20(S)-camptothecin to convert the lactone ring of the 20(S)-camptothecin into a carboxylate salt; (b) hydrogenating to the product of step (a) in the presence of a transition metal catalyst; (c) acidifying the aqueous phase of the product of step (b) to form 20(S)-camptothecin crystals; (d) adding at least one polar aprotic solvent to the product of step (c); and (e) separating off the purified 20(S)-camptothecin crystals. Thus, a crude extract obtained from *Nothapodytes foetida* containing camptothecin, 1.33% 18-dehydrocamptothecin, and 0.47% 9-methoxycamptothecin was taken up in a 2N NaOH soln and hydrogenated using Pd/C for 8 h. The hydrogenated mixture was treated with concentrated HCl and adjusted to a pH of 4.0-4.5 and then combined with DMF and stirred for 2.5 h at 90-100°, slowly the resulting mixture was cooled to rt and filtered. The 20(S)-camptothecin crystals, obtained were washed with MeOH and contained 94.2% of the 20(S)-camptothecin input with <0.05% of 18-dehydrocamptothecin and 0.11% of 9-methoxycamptothecin. A similar sequence which used 10% H2SO4 instead of concentrated HCl resulted in 92.6% of 20(S)-camptothecin input with 0.09% of 9-methoxycamptothecin and no detectable 18-dehydrocamptothecin.

ST camptothecin purifn hydrogenation palladium catalyst

IT Hydrogenation (process for purifying 20(S)-camptothecin via palladium catalyzed hydrogenation)

IT 7440-05-3, Palladium, uses

RL: CAT (Catalyst use); USES (Uses)  
 (process for purifying 20(S)-camptothecin via palladium catalyzed hydrogenation)

IT 7689-03-4P, 20(S)-Camptothecin  
 RL: IMF (Industrial manufacture); PUR (Purification or recovery); SPN (Synthetic preparation); PREP (Preparation)  
 (process for purifying 20(S)-camptothecin via palladium catalyzed hydrogenation)

IT 68-12-2, N,N-Dimethylformamide, uses 80-73-9, 1,3-Dimethylethyleneurea 127-19-5, N,N-Dimethylacetamide 872-50-4, N-Methylpyrrolidone, uses 7226-23-5, 1,3-Dimethylpropyleneurea  
 RL: NUU (Other use, unclassified); USES (Uses)  
 (process for purifying 20(S)-camptothecin via palladium catalyzed hydrogenation)

IT 39026-92-1, 9-Methoxycamptothecin  
 RL: OCCU (Occurrence, unclassified); OCCU (Occurrence)  
 (process for purifying 20(S)-camptothecin via palladium catalyzed hydrogenation)

IT 119403-33-7, 18-Dehydrocamptothecin  
 RL: OCCU (Occurrence, unclassified); RCT (Reactant); OCCU (Occurrence); RACT (Reactant or reagent)  
 (process for purifying 20(S)-camptothecin via palladium catalyzed hydrogenation)

IT 64-19-7, Acetic acid, reactions 76-05-1, Trifluoroacetic acid, reactions 1310-73-2, Sodium hydroxide, reactions 7647-01-0, Hydrochloric acid, reactions 7664-38-2, Phosphoric acid, reactions 7664-93-9, Sulfuric acid, reactions 7697-37-2, Nitric acid, reactions 10034-85-2, Hydroiodic acid 10035-10-6, Hydrobromic acid, reactions  
 RL: RGT (Reagent); RACT (Reactant or reagent)  
 (process for purifying 20(S)-camptothecin via palladium catalyzed hydrogenation)

L5 ANSWER 4 OF 4 BIOSIS COPYRIGHT (c) 2008 The Thomson Corporation on STN  
 ACCESSION NUMBER: 2001:56734 BIOSIS  
 DOCUMENT NUMBER: PREV200100056734  
 TITLE: Transannular vs intramolecular insertion reactions of transition metal carbenes: Evaluation of a transannular approach to cyclooctane ring synthesis.  
 AUTHOR(S): Dudones, James D.; Sampson, Paul [Reprint author]  
 CORPORATE SOURCE: Department of Chemistry, Kent State University, Kent, OH, 44242, USA  
 psampson@kent.edu  
 SOURCE: Tetrahedron, (1 December, 2000) Vol. 56, No. 49, pp. 9555-9567. print.  
 CODEN: TETRAB. ISSN: 0040-4020.  
 DOCUMENT TYPE: Article  
 LANGUAGE: English  
 ENTRY DATE: Entered STN: 24 Jan 2001  
 Last Updated on STN: 12 Feb 2002

AN 2001:56734 BIOSIS  
 DN PREV200100056734  
 TI Transannular vs intramolecular insertion reactions of transition metal carbenes: Evaluation of a transannular approach to cyclooctane ring synthesis.  
 AU Dudones, James D.; Sampson, Paul [Reprint author]  
 CS Department of Chemistry, Kent State University, Kent, OH, 44242, USA  
 psampson@kent.edu  
 SO Tetrahedron, (1 December, 2000) Vol. 56, No. 49, pp. 9555-9567. print.  
 CODEN: TETRAB. ISSN: 0040-4020.  
 DT Article  
 LA English

ED Entered STN: 24 Jan 2001  
 Last Updated on STN: 12 Feb 2002

AB The efficacy of closing cyclooctane rings via transannular metal-stabilized carbene insertion reactions within an 11-membered macrocyclic lactone ring was explored. The impact of performing these reactions in a transannular fashion was evaluated via a comparative study of closely analogous intramolecular (but not transannular) processes. Closure of a gamma-lactone ring via intramolecular cyclopropanation on a moderately electron-deficient alkene proceeded in good yield under Cu(acac)<sub>2</sub> catalysis, whereas analogous transannular cyclopropanation was thwarted by competitive beta-hydride migration. In contrast, use of a more electron-rich methoxy-substituted alkene resulted in successful transannular cyclopropanation to afford the desired cyclooctane ring-containing product.

CC Pharmacology - General 22002  
 Biochemistry studies - Minerals 10069  
 Pathology - Therapy 12512

IT Major Concepts  
 Methods and Techniques; Pharmacology

IT Chemicals & Biochemicals  
 11-membered macrocyclic lactone ring; alkene:  
 electron-rich, methoxy-substituted; beta-hydride: competitive,  
 migration; copper; cyclooctane ring; electron-deficient alkene; gamma-lactone ring; transition metal  
 carbenes

IT Methods & Equipment  
 copper-based catalysis: synthetic method; cyclooctane ring synthesis:  
 synthetic method; intramolecular cyclopropanation: synthetic method;  
 intramolecular insertion reactions: synthetic method; transannular  
 cyclopropanation: synthetic method; transannular insertion reactions:  
 synthetic method

IT Miscellaneous Descriptors  
 medicinal chemistry

RN 7440-50-8 (copper)

=> d his

(FILE 'HOME' ENTERED AT 14:56:27 ON 07 JUL 2008)

FILE 'CAPLUS' ENTERED AT 14:56:38 ON 07 JUL 2008

E US2005-551572/APPS

L1 1 S E3  
 SEL RN L1

FILE 'REGISTRY' ENTERED AT 14:57:18 ON 07 JUL 2008

L2 16 S E1-E16

FILE 'CAPLUS, BIOSIS, EMBASE, MEDLINE, SCISEARCH' ENTERED AT 14:58:32 ON 07 JUL 2008

L3 1567193 S L2  
 L4 329 S L3 AND ("LACTONE RING")  
 L5 4 S L4 AND ("TRANSITION METAL")

=> s l5 and ("delivery vehicle")  
 L6 0 L5 AND ("DELIVERY VEHICLE")

=> s (pharmaceutical excipient?) and (carrier?)  
 L7 640 (PHARMACEUTICAL EXCIPIENT?) AND (CARRIER?)

=> s l7 and cyclodextrin  
 L8 25 L7 AND CYCLODEXTRIN

=> s l8 and ("transition metal")  
 L9 0 L8 AND ("TRANSITION METAL")

=> s l8 and (zinc or copper)  
 L10 1 L8 AND (ZINC OR COPPER)

=> d l10 1 hitstr ibib all

L10 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 2008:640989 CAPLUS  
 DOCUMENT NUMBER: 149:17710  
 TITLE: Method of preparing solid dosage forms of multi-phasic pharmaceutical compositions comprising adsorbent carrier  
 INVENTOR(S): Shenoy, Dinesh; Lee, Robert; Soppimath, Kumaresh; Betageri, Guru  
 PATENT ASSIGNEE(S): Novavax, Inc., USA  
 SOURCE: PCT Int. Appl., 33pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

| PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE       |
|---|------|----------|-----------------|------------|
| WO 2008063910   | A2   | 20080529 | WO 2007-US84141 | 20071108   |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW<br>RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM |      |          |                 |            |
| PRIORITY APPLN. INFO.:  |      |          | US 2006-857511P | P 20061108 |
| AN 2008:640989 CAPLUS   |      |          |                 |            |
| DN 149:17710  |      |          |                 |            |
| ED Entered STN: 29 May 2008   |      |          |                 |            |
| TI Method of preparing solid dosage forms of multi-phasic pharmaceutical compositions comprising adsorbent carrier  |      |          |                 |            |
| IN Shenoy, Dinesh; Lee, Robert; Soppimath, Kumaresh; Betageri, Guru   |      |          |                 |            |
| PA Novavax, Inc., USA   |      |          |                 |            |
| SO PCT Int. Appl., 33pp.  |      |          |                 |            |
| CODEN: PIXXD2   |      |          |                 |            |
| DT Patent   |      |          |                 |            |
| LA English  |      |          |                 |            |
| IC ICM A61K   |      |          |                 |            |
| CC 63-6 (Pharmaceuticals)   |      |          |                 |            |
| FAN.CNT 1   |      |          |                 |            |

| PATENT NO.   | KIND | DATE     | APPLICATION NO. | DATE     |
|--|------|----------|-----------------|----------|
| WO 2008063910  | A2   | 20080529 | WO 2007-US84141 | 20071108 |
| W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, |      |          |                 |          |

CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

FRAI US 2006-857511P P 20061108

# CLASS

| PATENT NO. | CLASS | PATENT FAMILY CLASSIFICATION CODES |
|------------|-------|------------------------------------|
|------------|-------|------------------------------------|

|               |      |              |
|---------------|------|--------------|
| WO 2008063910 | ICM  | A61K         |
|               | IPCI | A61K [ICM,7] |

- AB Pharmaceutical formulations comprising a multi-phasic pharmaceutical composition, and an adsorbent carrier, where the pharmaceutical formulation is a solid dosage form. Methods for preparing such pharmaceutical compns. are described. Thus, a multiphasic composition was prepared: Et alc. (8.8 wt%) was mixed with polysorbate 80 (9.4 wt%) and soybean oil (50.2 wt%); water (31.6 wt%) was added and the resulting composition was subjected to emulsification; the emulsion was processed using a high-pressure homogenizer. An active pharmaceutical ingredient may be incorporated in the above preparation
- ST solid dosage multiphase adsorbent carrier pharmaceutical
- IT Glycerides, biological studies
- RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (C16-18; method of preparing solid dosage forms of multi-phasic pharmaceutical compns. comprising adsorbent carrier)
- IT Fats and Glyceridic oils, biological studies
- RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (apricot kernel; method of preparing solid dosage forms of multi-phasic pharmaceutical compns. comprising adsorbent carrier)
- IT Mental and behavioral disorders
- (attention deficit disorder; method of preparing solid dosage forms of multi-phasic pharmaceutical compns. comprising adsorbent carrier)
- IT Essential oils
- RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (bitter almond; method of preparing solid dosage forms of multi-phasic pharmaceutical compns. comprising adsorbent carrier)
- IT Fats and Glyceridic oils, biological studies
- RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (borage seed; method of preparing solid dosage forms of multi-phasic pharmaceutical compns. comprising adsorbent carrier)
- IT Acrylic polymers, biological studies
- RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (crosslinked; method of preparing solid dosage forms of multi-phasic pharmaceutical compns. comprising adsorbent carrier)
- IT Pharmaceutical excipients
- (disintegrants; method of preparing solid dosage forms of multi-phasic pharmaceutical compns. comprising adsorbent carrier)
- IT Nervous system
- (dopaminergic; method of preparing solid dosage forms of multi-phasic pharmaceutical compns. comprising adsorbent carrier)
- IT Alkaloids, biological studies
- RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (ergot; method of preparing solid dosage forms of multi-phasic pharmaceutical compns. comprising adsorbent carrier)

IT Fatty acids, biological studies  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (esters, with sorbitan, SPAN; method of preparing solid dosage forms of multi-phasic pharmaceutical compns. comprising adsorbent carrier)

IT Castor oil  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (ethoxylated; method of preparing solid dosage forms of multi-phasic pharmaceutical compns. comprising adsorbent carrier)

IT Fats and Glyceridic oils, biological studies  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (fish; method of preparing solid dosage forms of multi-phasic pharmaceutical compns. comprising adsorbent carrier)

IT Castor oil  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (hydrogenated, ethoxylated, Cremophor RH 40; method of preparing solid dosage forms of multi-phasic pharmaceutical compns. comprising adsorbent carrier)

IT Glycerides, biological studies  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (long-chain; method of preparing solid dosage forms of multi-phasic pharmaceutical compns. comprising adsorbent carrier)

IT Fats and Glyceridic oils, biological studies  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (macadamia nut; method of preparing solid dosage forms of multi-phasic pharmaceutical compns. comprising adsorbent carrier)

IT Glycerides, biological studies  
 RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (medium-chain; method of preparing solid dosage forms of multi-phasic pharmaceutical compns. comprising adsorbent carrier)

IT AIDS (disease)  
 Adrenoceptor agonists  
 Allergy inhibitors  
 Analgesics  
 Anesthetics  
 Anthelmintics  
 Anti-infective agents  
 Anti-inflammatory agents  
 Antianginal agents  
 Antiarrhythmics  
 Antibiotics  
 Anticoagulants  
 Anticonvulsants  
 Antidepressants  
 Antidiabetic agents  
 Antidiuretics  
 Antiemetics  
 Antihistamines  
 Antihypertensives  
 Antimigraine agents  
 Antioxidants  
 Antiparkinsonian agents  
 Antithyroid agents  
 Antitumor agents  
 Antitussives  
 Antiviral agents  
 Appetite depressants  
 Astringents  
 Blood products  
 Blood substitutes  
 Cardiovascular agents

Central nervous system agents  
Ceratonina  
Chelating agents  
Cholinergic agonists  
Cholinergic antagonists  
Coloring materials  
Controlled-release drug delivery systems  
Corn  
Dermatological agents  
Dissolution  
Diuretics  
Expectorants  
Flavoring materials  
Fungicides  
Gastrointestinal agents  
Heart, disease  
Hemostatics  
Hypnotics and Sedatives  
Immunosuppressants  
Inotropics  
Lubricants  
Muscarinic antagonists  
Muscle relaxants  
Nervous system stimulants  
Nutrients  
Opioid antagonists  
Pharmaceutical capsules  
Pharmaceutical foams  
Pharmaceutical solids  
Pharmaceutical tablets  
Preservatives  
Respiratory system agents  
Stabilizing agents  
Sweetening agents  
Thrombolytics  
Vaccines  
Vasodilators  
Zea mays

(method of preparing solid dosage forms of multi-phasic pharmaceutical compns. comprising adsorbent carrier)

- IT Aluminosilicates, biological studies  
Bentonite, biological studies  
Canola oil  
Cardiolipins  
Clays, biological studies  
Coconut oil  
Corn oil  
Corticosteroids, biological studies  
Cottonseed oil  
Essential oils  
Fatty acids, biological studies  
Gelatin, biological studies  
Glycerides, biological studies  
Glycolipids  
Hormones, animal, biological studies  
Interleukins  
Jojoba oil  
Kaolin, biological studies  
Linseed oil  
Olive oil  
Peanut oil

Perlite  
 Phosphatidic acids  
 Phosphatidylcholines, biological studies  
 Phosphatidylethanolamines, biological studies  
 Phosphatidylglycerols  
 Phosphatidylinositols  
 Phosphatidylserines  
 Phospholipids, biological studies  
 Polyoxaalkylenes, biological studies  
 Polysaccharides, biological studies  
 Polyurethanes, biological studies  
 Prostaglandins  
 Safflower oil  
 Sex hormones  
 Silicates, biological studies  
 Soybean oil  
 Sphingomyelins  
 Sunflower oil  
 Zeolites (synthetic), biological studies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (method of preparing solid dosage forms of multi-phasic pharmaceutical compns. comprising adsorbent carrier)

IT Fats and Glyceridic oils, biological studies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (nut; method of preparing solid dosage forms of multi-phasic pharmaceutical compns. comprising adsorbent carrier)

IT Lard

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (oil; method of preparing solid dosage forms of multi-phasic pharmaceutical compns. comprising adsorbent carrier)

IT Essential oils

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (peppermint; method of preparing solid dosage forms of multi-phasic pharmaceutical compns. comprising adsorbent carrier)

IT Adsorbents

(pharmaceutical; method of preparing solid dosage forms of multi-phasic pharmaceutical compns. comprising adsorbent carrier)

IT Fats and Glyceridic oils, biological studies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (sesame; method of preparing solid dosage forms of multi-phasic pharmaceutical compns. comprising adsorbent carrier)

IT Fats and Glyceridic oils, biological studies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (vegetable; method of preparing solid dosage forms of multi-phasic pharmaceutical compns. comprising adsorbent carrier)

IT Fats and Glyceridic oils, biological studies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (wheat germ; method of preparing solid dosage forms of multi-phasic pharmaceutical compns. comprising adsorbent carrier)

IT 9003-01-4D, crosslinked

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (Carbomer; method of preparing solid dosage forms of multi-phasic pharmaceutical compns. comprising adsorbent carrier)

IT 9003-39-8D, crosslinked

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (Crospovidone; method of preparing solid dosage forms of multi-phasic pharmaceutical compns. comprising adsorbent carrier)

IT 7631-86-9, Silicon dioxide, biological studies

RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (colloidal; method of preparing solid dosage forms of multi-phasic pharmaceutical compns. comprising adsorbent carrier)



- IT 50-70-4, Sorbitol, biological studies 50-99-7, Dextrose, biological studies 57-11-4, Stearic acid, biological studies 57-48-7, Fructose, biological studies 57-50-1, Sucrose, biological studies 57-55-6, Propylene glycol, biological studies 60-33-3, Linoleic acid, biological studies 63-42-3, Lactose 64-17-5, Ethyl alcohol, biological studies 67-56-1, Methyl alcohol, biological studies 67-68-5, Dimethyl sulfoxide, biological studies 69-65-8, Mannitol 69-79-4, Maltose 69-89-6, Xanthine 79-41-4D, Methacrylic acid, derivs., copolymers 87-99-0, Xylitol 99-20-7, Trehalose 100-51-6, Benzyl alcohol, biological studies 102-76-1, Triacetin 110-17-8, Fumaric acid, biological studies 110-27-0, Isopropyl myristate 111-01-3, Squalane 111-62-6, Ethyl oleate 111-90-0 112-80-1, Oleic acid, biological studies 151-21-3, Sodium lauryl sulfate, biological studies 463-40-1, Linolenic acid 471-34-1, Calcium carbonate, biological studies 538-23-8, Tricaprylin 544-35-4, Ethyl linoleate 546-93-0, Magnesium carbonate 557-04-0, Magnesium stearate 557-05-1, Zinc stearate 577-11-7, Docusate sodium 585-86-4, Lactitol 872-50-4, biological studies 1309-48-4, Magnesium oxide, biological studies 1318-00-9, Vermiculite 1327-43-1, Magnesium aluminum silicate 1335-30-4, Aluminum silicate 1338-39-2, Sorbitan monolaurate 1338-41-6, Sorbitan monostearate 1338-43-8, Sorbitan monooleate 1344-95-2D, Calcium silicate, hydrous 1592-23-0, Calcium stearate 7585-39-9D,  $\beta$ -Cyclodextrin, hydroxypropyl-, sulfobutyl ether-7- 7647-14-5, Sodium chloride, biological studies 7757-93-9, Calcium phosphate dibasic 7758-87-4 7778-18-9, Calcium sulfate 9000-01-5, Acacia gum 9000-07-1, Carrageenan 9000-30-0, Guar gum 9000-65-1, Tragacanth 9002-72-6, Growth hormone 9002-89-5, Polyvinyl alcohol 9003-07-0, Polypropylene 9003-39-8, Povidone 9004-32-4, Carboxymethyl cellulose sodium 9004-34-6D, Cellulose, derivs., polymers 9004-35-7 9004-38-0, Cellulose acetate phthalate 9004-53-9, Dextrin 9004-57-3, Ethyl cellulose 9004-62-0, Hydroxyethyl cellulose 9004-64-2, Hydroxypropyl cellulose 9004-65-3, Hydroxypropyl methylcellulose 9004-74-4, Methoxypolyethylene glycol 9005-25-8, Starch, biological studies 9005-32-7, Alginate acid 9005-38-3, Sodium alginate 9005-64-5, Polysorbate 20 9005-65-6, Polysorbate 80 9005-66-7, Polysorbate 40 9005-67-8, Polysorbate 60 9007-48-1, Polyglyceryl oleate 9010-88-2 9012-76-4, Chitosan 9016-45-9, TERGITOL NP-40 9034-39-3, Growth hormone-releasing hormone 9034-40-6, Luteinizing hormone releasing hormone 9050-04-8 9050-36-6, Maltodextrin 9063-38-1, Sodium starch glycolate 10191-41-0, DL- $\alpha$ -Tocopherol 12174-11-7, Attapulgit 12619-70-4, Cyclodextrin 14807-96-6, Talc, biological studies 17465-86-0,  $\gamma$ -Cyclodextrin 18641-57-1, Glycerol behenate 22788-19-8, Propylene glycol dilaurate 25086-15-1, Poly(methacrylic acid-methyl methacrylate) 25086-89-9 25087-26-7D, Polymethacrylic acid, derivs., polymers 25212-88-8, Poly(ethyl acrylate-Methacrylic acid) 25322-68-3, Polyethylene oxide 25496-72-4, Glycerol monooleate 26266-57-9, Sorbitan monopalmitate 26266-58-0, Sorbitan trioleate 27194-74-7 31566-31-1, Glyceryl monostearate 68424-04-4, Polydextrose 71012-10-7, Tetraglyceryl monooleate 74811-65-7, Croscarmellose sodium 106392-12-5, Poloxamer 106602-88-4 176049-28-8 691397-13-4, PLURONIC RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (method of preparing solid dosage forms of multi-phasic pharmaceutical compns. comprising adsorbent carrier)
- IT 9004-34-6, Cellulose, biological studies RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses) (microcryst.; method of preparing solid dosage forms of multi-phasic pharmaceutical compns. comprising adsorbent carrier)

=> d his

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(FILE 'HOME' ENTERED AT 14:56:27 ON 07 JUL 2008)

FILE 'CAPLUS' ENTERED AT 14:56:38 ON 07 JUL 2008
  E US2005-551572/APPS
L1      1 S E3
        SEL RN L1

FILE 'REGISTRY' ENTERED AT 14:57:18 ON 07 JUL 2008
L2      16 S E1-E16

FILE 'CAPLUS, BIOSIS, EMBASE, MEDLINE, SCISEARCH' ENTERED AT 14:58:32 ON
07 JUL 2008
L3      1567193 S L2
L4      329 S L3 AND ("LACTONE RING")
L5      4 S L4 AND ("TRANSITION METAL")
L6      0 S L5 AND ("DELIVERY VEHICLE")
L7      640 S (PHARMACEUTICAL EXCIPIENT?) AND (CARRIER?)
L8      25 S L7 AND CYCLODEXTRIN
L9      0 S L8 AND ("TRANSITION METAL")
L10     1 S L8 AND (ZINC OR COPPER)

=> s l8 and ("lipid carrier")
L11     0 L8 AND ("LIPID CARRIER")

=> s ("lipid carrier") and (micelle? or nanoparticle?)
L12     358 ("LIPID CARRIER") AND (MICELLE? OR NANOPARTICLE?)

=> s l12 and ("polymeric carrier?")
L13     0 L12 AND ("POLYMERIC CARRIER?")

=> s l12 and polymer?
L14     37 L12 AND POLYMER?

=> d his

(FILE 'HOME' ENTERED AT 14:56:27 ON 07 JUL 2008)

FILE 'CAPLUS' ENTERED AT 14:56:38 ON 07 JUL 2008
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L7      640 S (PHARMACEUTICAL EXCIPIENT?) AND (CARRIER?)
L8      25 S L7 AND CYCLODEXTRIN
L9      0 S L8 AND ("TRANSITION METAL")
L10     1 S L8 AND (ZINC OR COPPER)
L11     0 S L8 AND ("LIPID CARRIER")
L12     358 S ("LIPID CARRIER") AND (MICELLE? OR NANOPARTICLE?)
L13     0 S L12 AND ("POLYMERIC CARRIER?")
L14     37 S L12 AND POLYMER?

=> s l14 and l8

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L15          0 L14 AND L8

=> s l14 or 18
L16          62 L14 OR L8

=> s l16 and 15
L17          0 L16 AND L5

=> s l16 or 15
L18          66 L16 OR L5

=> s l18 and 14
L19          4 L18 AND L4

=> dup rem l19 l5
PROCESSING COMPLETED FOR L19
PROCESSING COMPLETED FOR L5
L20          4 DUP REM L19 L5 (4 DUPLICATES REMOVED)
              ANSWERS '1-3' FROM FILE CAPLUS
              ANSWER '4' FROM FILE BIOSIS

=> d l20 and polymers
'AND' IS NOT A VALID FORMAT
'POLYMERS' IS NOT A VALID FORMAT
In a multifile environment, a format can only be used if it is valid
in at least one of the files. Refer to file specific help messages
or the STNGUIDE file for information on formats available in
individual files.
REENTER DISPLAY FORMAT FOR ALL FILES (FILEDEFAULT):d l20 and polymers
'D' IS NOT A VALID FORMAT
'L105' IS NOT A VALID FORMAT
'AND' IS NOT A VALID FORMAT
'POLYMERS' IS NOT A VALID FORMAT
In a multifile environment, a format can only be used if it is valid
in at least one of the files. Refer to file specific help messages
or the STNGUIDE file for information on formats available in
individual files.
REENTER DISPLAY FORMAT FOR ALL FILES (FILEDEFAULT):
REENTER DISPLAY FORMAT FOR ALL FILES (FILEDEFAULT):ibib

L20 ANSWER 1 OF 4 CAPLUS COPYRIGHT 2008 ACS on STN DUPLICATE 1
ACCESSION NUMBER: 2006:1265519 CAPLUS
DOCUMENT NUMBER: 146:107117
TITLE: Transition Metal-Mediated
        Liposomal Encapsulation of Irinotecan (CPT-11)
        Stabilizes the Drug in the Therapeutically Active
        Lactone Conformation
AUTHOR(S): Ramsay, Euan; Alnajim, Jehan; Anantha, Malathi;
        Taggar, Aman; Thomas, Anitha; Edwards, Katarina;
        Karlsson, Goeran; Webb, Murray; Bally, Marcel
CORPORATE SOURCE: Department of Advanced Therapeutics, BC Cancer Agency,
        Vancouver, BC, V5Z 1L3, Can.
SOURCE: Pharmaceutical Research (2006), 23(12), 2799-2808
        CODEN: PHREEB; ISSN: 0724-8741
PUBLISHER: Springer
DOCUMENT TYPE: Journal
LANGUAGE: English
REFERENCE COUNT: 36 THERE ARE 36 CITED REFERENCES AVAILABLE FOR THIS
                  RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

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=> d his

(FILE 'HOME' ENTERED AT 14:56:27 ON 07 JUL 2008)

FILE 'CAPLUS' ENTERED AT 14:56:38 ON 07 JUL 2008

E US2005-551572/APPS

L1 1 S E3  
SEL RN L1

FILE 'REGISTRY' ENTERED AT 14:57:18 ON 07 JUL 2008

L2 16 S E1-E16

FILE 'CAPLUS, BIOSIS, EMBASE, MEDLINE, SCISEARCH' ENTERED AT 14:58:32 ON  
07 JUL 2008

L3 1567193 S L2  
L4 329 S L3 AND ("LACTONE RING")  
L5 4 S L4 AND ("TRANSITION METAL")  
L6 0 S L5 AND ("DELIVERY VEHICLE")  
L7 640 S (PHARMACEUTICAL EXCIPIENT?) AND (CARRIER?)  
L8 25 S L7 AND CYCLODEXTRIN  
L9 0 S L8 AND ("TRANSITION METAL")  
L10 1 S L8 AND (ZINC OR COPPER)  
L11 0 S L8 AND ("LIPID CARRIER")  
L12 358 S ("LIPID CARRIER") AND (MICELLE? OR NANOPARTICLE?)  
L13 0 S L12 AND ("POLYMERIC CARRIER?")  
L14 37 S L12 AND POLYMER?  
L15 0 S L14 AND L8  
L16 62 S L14 OR L8  
L17 0 S L16 AND L5  
L18 66 S L16 OR L5  
L19 4 S L18 AND L4  
L20 4 DUP REM L19 L5 (4 DUPLICATES REMOVED)

=> s l20 and ("chemotherapeutic drug?")

L21 0 L20 AND ("CHEMOTHERAPEUTIC DRUG?")

=> s l20 and irinotecan

L22 2 L20 AND IRINOTECAN

=> dup rem l22 l20

PROCESSING COMPLETED FOR L22

PROCESSING COMPLETED FOR L20

L23 4 DUP REM L22 L20 (2 DUPLICATES REMOVED)  
ANSWERS '1-3' FROM FILE CAPLUS  
ANSWER '4' FROM FILE BIOSIS

=> d his

(FILE 'HOME' ENTERED AT 14:56:27 ON 07 JUL 2008)

FILE 'CAPLUS' ENTERED AT 14:56:38 ON 07 JUL 2008

E US2005-551572/APPS

L1 1 S E3  
SEL RN L1

FILE 'REGISTRY' ENTERED AT 14:57:18 ON 07 JUL 2008

L2 16 S E1-E16

FILE 'CAPLUS, BIOSIS, EMBASE, MEDLINE, SCISEARCH' ENTERED AT 14:58:32 ON  
07 JUL 2008

L3 1567193 S L2

L4 329 S L3 AND ("LACTONE RING")  
 L5 4 S L4 AND ("TRANSITION METAL")  
 L6 0 S L5 AND ("DELIVERY VEHICLE")  
 L7 640 S (PHARMACEUTICAL EXCIPIENT?) AND (CARRIER?)  
 L8 25 S L7 AND CYCLODEXTRIN  
 L9 0 S L8 AND ("TRANSITION METAL")  
 L10 1 S L8 AND (ZINC OR COPPER)  
 L11 0 S L8 AND ("LIPID CARRIER")  
 L12 358 S ("LIPID CARRIER") AND (MICELLE? OR NANOPARTICLE?)  
 L13 0 S L12 AND ("POLYMERIC CARRIER?")  
 L14 37 S L12 AND POLYMER?  
 L15 0 S L14 AND L8  
 L16 62 S L14 OR L8  
 L17 0 S L16 AND L5  
 L18 66 S L16 OR L5  
 L19 4 S L18 AND L4  
 L20 4 DUP REM L19 L5 (4 DUPLICATES REMOVED)  
 L21 0 S L20 AND ("CHEMOTHERAPEUTIC DRUG?")  
 L22 2 S L20 AND IRINOTECAN  
 L23 4 DUP REM L22 L20 (2 DUPLICATES REMOVED)